

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-5. (Canceled)

6. (Previously Presented) A single-pass ink jet printing head for printing on a moving web, the printing head comprising

an array of ink jet outlets sufficient to cover a target width defined on the web at a predetermined resolution, and

orifice plates, each of the orifice plates having orifices, each of the orifice plates serving some but not all of the area to be printed,

the orifices being arranged in a pattern such that adjacent parallel lines on the web are served by orifices that have different positions in the array along the direction of the print lines, that are separated by a distance that is at least an order of magnitude greater than the distance between adjacent orifices in a direction perpendicular to the print line direction.

7. (Previously Presented) The head of claim 6 in which each of the orifice plates is associated with a print head module that prints a swath along the web, the swath being narrower than the target width.

8. (Previously Presented) The head of claim 6 in which the number of orifices in each of the orifice plates is within a range of 250 to 4000, preferably between 1000 and 2000, most preferably about 1500.

9. (Previously Presented) The head of claim 6 in which there are no more than five swath arrays to cover the entire target width.

10. (Previously Presented) The head of claim 6 in which there are three swath arrays.

11. (Currently Amended) A single-pass [[piezoelectric]] ink jet printing head, the printing head comprising
an array of ink jet outlets sufficient to cover a target width of a print substrate at a predetermined resolution, and

orifice plates, each of the orifice plates having orifices, each of the orifice plates serving some but not all of the area to be printed,

the orifices being arranged in a pattern such that adjacent parallel lines on the print medium are served by orifices that have different positions in the array along the direction of the print lines, that are separated by a distance that is at least an order of magnitude greater than the distance between adjacent orifices in a direction perpendicular to the print line direction,

wherein the ink jet printing head is a piezoelectric ink jet printing head.

12. (Previously Presented) The head of claim 11 in which each of the orifice plates is associated with a print head module that prints a swath along the substrate, the swath being narrower than the target width of the substrate.

13. (Previously Presented) The head of claim 11 in which the number of orifices in each of the orifice plates is within a range of 250 to 4000, preferably between 1000 and 2000, most preferably about 1500.

14. (Previously Presented) The head of claim 11 in which there are no more than five swath arrays to cover the entire target width.
15. (Previously Presented) The head of claim 11 in which there are three swath arrays.
16. (Previously Presented) A single-pass ink jet printing head comprising an array of ink jet outlets sufficient to cover a target width of a print substrate at a predetermined resolution, and
orifice plates, each of the orifice plates having orifices, each of the orifice plates serving some but not all of the area to be printed,
the orifices being arranged in a pattern such that adjacent parallel lines on the print medium are served by orifices that have different positions in the array along the direction of the print lines, that are separated by a distance that is at least an order of magnitude greater than but no more than two orders of magnitude greater than the distance between adjacent orifices in a direction perpendicular to the print line direction.
17. (Previously Presented) The head of claim 16 in which each of the orifice plates is associated with a print head module that prints a swath along the substrate, the swath being narrower than the target width of the substrate.
18. (Previously Presented) The head of claim 16 in which the number of orifices in each of the orifice plates is within a range of 250 to 4000, preferably between 1000 and 2000, most preferably about 1500.
19. (Previously Presented) The head of claim 16 in which there are no more than five swath arrays to cover the entire target width.

20. (Previously Presented) The head of claim 16 in which there are three swath arrays.

21. (Previously Presented) A single-pass ink jet printing head comprising an array of ink jet outlets sufficient to cover a target width of a print substrate at a predetermined resolution, and
orifice plates, each of the orifice plates having orifices, each of the orifice plates serving some but not all of the area to be printed,
the orifices being arranged in a pattern such that adjacent parallel lines on the print medium are served by orifices that have different positions in the array along the direction of the print lines, that are separated by a distance that is at least an order of magnitude greater than the distance between adjacent orifices in a web direction, the web direction being perpendicular to the print line direction,
wherein the ratio between the largest distance between adjacent orifices in the web direction and the smallest distance between adjacent orifices in the web direction is no greater than 1.67.

22. (Previously Presented) The head of claim 21 in which each of the orifice plates is associated with a print head module that prints a swath along the substrate, the swath being narrower than the target width of the substrate.

23. (Previously Presented) The head of claim 21 in which the number of orifices in each of the orifice plates is within a range of 250 to 4000, preferably between 1000 and 2000, most preferably about 1500.

24. (Previously Presented) The head of claim 21 in which there are no more than five swath arrays to cover the entire target width.

25. (Previously Presented) The head of claim 21 in which there are three swath arrays.

26. (Previously Presented) The head of claim 21, wherein the ratio is approximately equal to unity.